



US Army Corps  
of Engineers  
Engineer Research and  
Development Center

# Spatial Data Standards for Facilities, Infrastructure, and Environment

## Technology

The Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) are the only nonproprietary geographic information system (GIS) standards designed for use with the predominant commercially available off-the-shelf GIS and computer-aided design and drafting (CADD) and relational database software. SDSFIE is a standardized grouping of geographically referenced (i.e., geospatial) features (i.e., real-world features or objects depicted graphically on a map at their real-world locations (i.e., coordinates). Each geospatial feature has an "attached" attribute table containing pertinent data about the geospatial feature.

## Problem

Lack of consistency in CADD and GIS applications can result in costly expenditures, needless duplication of efforts, and increased risk of errors on projects. A uniform method of collecting and managing geospatial data reduces the possibility of these problems impacting a project.

## Benefits

The SDSFIE provides a common format for the development of GIS, thereby cutting costs and allowing for the sharing of data sets among Federal partners, commercial/private concerns, and government installations. GIS users profit from this increased compatibility through time and cost savings, greater accuracy and consistency, and the ability to easily share geographic data among different organizations. The SDSFIE is a user-friendly, CD-based standard for use with commercially available off-the-shelf GIS and CADD software. It supports all aspects of management of facilities and installations, including environmental, site, and engineering planning.

## Status

The American National Standards Institute's (ANSI) Committee for Information Technology Standards has approved the SDSFIE as NCITS 353. This accreditation is an important milestone, not only because of what NCITS 353 addresses, but also because of its database format, which makes it instantly usable. The CADD/GIS Technology Center annually updates and expands the SDSFIE. Release 2.00 of the SDSFIE was completed in January 2001 and is available on CD-ROM or by download from the CADD/GIS Technology Center's Web site.

## Distribution

The SDSFIE (along with the Facility Management Standards for facilities, infrastructure, and environment (FMSFIE)) is distributed via CD-ROM and the Internet.

## Training

CD-ROM training is available upon request, and Web-based training is under development. For information about SDSFIE Implementation Workshops, contact Bobby Carpenter at 601-634-4572 or by e-mail to [Bobby.G.Carpenter@erdc.usace.army.mil](mailto:Bobby.G.Carpenter@erdc.usace.army.mil).

## Point of Contact

For additional information, contact Bobby Carpenter at 601-634-3140 or by e-mail to [Bobby.G.Carpenter@erdc.usace.army.mil](mailto:Bobby.G.Carpenter@erdc.usace.army.mil).

